



Meeting Report

12th Global TestNet Annual Forum
8th and 9th of December 2022

**International Maritime Organization
4 Albert Embankment
London
SE1 7SR
United Kingdom**

**Version I
22nd December 2022**

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I Introduction

I.1 Venue

The 12th Annual meeting of the Global TestNet took place in London (UK) on the 8th and 9th of December 2022 at IMO headquarters. The meeting welcomed members from many of our member facilities together with observers from Class Societies, GESAMP, GloFouling Partnership and private companies. The meeting was held as a hybrid event to support a maximum attendance of the membership.

Global TestNet would like to thank IMO for kindly hosting our annual meeting.

I.2 Attendees

Table 1: Global TestNet 12th Annual Meeting Attendees (Non-members)

| | Name | Institution | Contact | Physical Online |
|----|----------------------|------------------|--|--------------------|
| 1 | Guillaume Drillet | SGS | Guillaume.Drillet@sgs.com | Physical |
| 2 | Tim Fileman | PML Applications | TWF@pml.ac.uk | Physical |
| 3 | K Shin | KIOST | ksshin@kiost.ac.kr | Online |
| 4 | Kang | KIOST | jhkang@kiost.ac.kr | Online |
| 5 | Stephan Gollasch | Control Union | sgollasch@gmx.net | Physical |
| 6 | Cees van Slooten | Control Union | cvslooten@controlunion.com | Online |
| 7 | Ashley Coutts | BFS | acoutts@biofoulingolutions.com.au | Online |
| 8 | Remi Maguet | DHI | rgm@dhigroup.com | Physical |
| 9 | Pernille Bohn | DHI | pebo@dhigroup.com | Physical |
| 10 | Stephen Loiacono | GBF | sloiacono@csum.edu | Physical |
| 11 | Jurga Shaule | GloFouling | jshaule@imo.org | Physical |
| 12 | John Alonso | GloFouling | JAlonso@imo.org | Physical |
| 13 | Theofanis Karayannis | IMO | TKarayan@imo.org | Physical |
| 14 | Sahan Abeysekara | LR | sahan.abeysekara@lr.org | Physical |
| 15 | Nakyung Park | KOMERI | nkpark@komeri.re.kr | Online |
| 16 | Thomas Vance | PML Applications | thva@pml.ac.uk | Online |
| 17 | Stephanie Delacroix | NIVA | Stephanie.Delacroix@niva.no | Online |
| 18 | Jan Linders | GESAMP BWWG | jbhj.linders@gmail.com | Online |
| 19 | Alessio di Fino | Endures | alessio.difino@endures.nl | Online |
| 20 | Matthew TenEyck, | Uwsuper | MTenEyck@uwsuper.edu | Online |

| | | | | |
|----|------------------|------------|--|----------|
| 21 | Solene Guere | NotiloPlus | solene.guere@gmail.com | Online |
| 22 | Nicolas Shields | GBF | | Physical |
| 23 | Alexandre Arnaud | NotiloPlus | alexandre.arnaud@notiloplus.com | Online |
| 24 | Melissa Tribou | | mtribou@my.fit.edu | Online |

1.3 Agenda

The agenda was presented to the meeting. It was proposed that we accept the agenda by TF and seconded by SL. Everyone that was present voted in favour.

Agenda of the Global TestNet Annual meeting 8th and 9th December 2022

Day 1 – Thursday 8th December 2022

| | |
|---------------|--|
| 09:00 – 09:30 | <ul style="list-style-type: none"> Registration and introductions at the IMO Headquarters, London Housekeeping rules reminder (IMO, John Alonso) |
| 09:30 - 10:45 | <ul style="list-style-type: none"> Welcomes Address - (Global TestNet Chair, Guillaume Drillat) Introduction of participants – round of table (All) Acceptance of the agenda + modification if required - (Tim Fileman) Steering Committee report: activities and achievements, changes in Membership, ... (Guillaume Drillat) Directorship Report: Finance, Directorship structure (Chris Brown) |
| 10:45 - 11:00 | Tea/Coffee Break |
| 11:00 – 12:30 | <ul style="list-style-type: none"> Updates from the Experience Building Phase (Theofanis Karayannis, IMO) Views from Class on commissioning quality testing arrangements (Sahan Abeysekara - LR) Impacts of mandatory requirements for commissioning testing on overall discharge compliance at installations (Guillaume Drillat, SGS) What to learn from 16 years of shipboard testing data (Stephanie Delacroix – NIVA) (Online) Update from ISO committee (ISO 11711; CMD devices) – information to be shared from the committee chair – presentation by Tim Fileman (tent.) |
| 12:30 – 13:30 | Lunch |
| 13:30 – 15:00 | <ul style="list-style-type: none"> Updates from GESAMP BWWG (Jan Linders, Chair, Online presentation) Updates from VIDA (Stephan Lotzaco (tent.)) Discussions and positioning of Global TestNet – way forward <ul style="list-style-type: none"> Commissioning (quality of Global TestNet activities, Reporting templates to Class) |

Global TestNet Annual meeting 8th and 9th December 2022

| | |
|---------------|--|
| | <ul style="list-style-type: none"> Experience Building Phase (reporting of observed failures, TRQ issues, revision of BWMC) Emerging topics (Part with Challenging water conditions, survival of pathogens in tanks/discharge) |
| 15:00 – 15:30 | Tea/Coffee Break |
| 15:30 – 17:00 | <ul style="list-style-type: none"> Discussions (Continued) @16:45- Updates from FML activities regarding AFS and Biofouling (Thomas Vance, FML) - Online |
| 17:00 | Day 1 adjourned (Dinner – pub/restaurant to be found) |

Day 2 – Friday 9th December 2022

| | |
|---------------|---|
| 09:00 - 09:30 | Day 2 Start – tea/coffee, networking |
| 09:30 – 10:30 | <ul style="list-style-type: none"> Introduction to the Day 2 Agenda by Tim Fileman AFS convention and the Biofouling Guidelines: regulatory update (Theofanis Karayannis, IMO) GloFouling Project Update (IMO) 20 min (John Alonso, GloFouling) Overview of BioFouling Activities at KIOST (Prof Shin, KIOST) Updates from Biofouling activities at BioFouling Solutions and comments on MERC recently published Guidelines (Ashley Coultz, BFS) |
| 10:30 – 11:00 | Tea/Coffee break |
| 11:00 - 12:30 | <ul style="list-style-type: none"> Introduction to BioFouling monitoring AI systems (Solene Guere, (title is tentative)) Introduction to Endures activities (Alessio di Fiore) – Online Discussions: <ul style="list-style-type: none"> Activities to follow (priorities) Leadership and new members IWC systems Claims and Approval Biofouling Compliance requirements |
| 12:30 – 13:30 | Lunch |

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| | |
|---------------|--|
| 15:10 – 15:30 | Tea/Coffee Break |
| 15:30 – 16:30 | <ul style="list-style-type: none"> Election of Chair, Steering Committee & Secretariat (Members only) |
| 16:30 – 17:00 | <ul style="list-style-type: none"> Wrapping up and conclusions of the meeting – lead by newly elected chair |
| 17:00 | Day 2 adjourned – End of Global TestNet Annual Meeting |

2 Steering Committee and Directorship Reports

2.1 Steering Committee Report

2.1.1 membership

The Global TestNet membership status was presented showing 14 current members:

1. Ankron Water Services
2. Ballast Water Detecting Laboratory of Shanghai Ocean University (SHOU-BWDL)
3. Biofouling Solutions Pty Ltd
4. Cal Maritime Golden Bear Facility
5. DHI
6. Korea Institute of Ocean Science and Technology (KIOST)
7. Korea Marine Equipment Research Institute (KOMERI)
8. Marine Biological Research Institute of Japan, Co., Ltd
9. Norsk Institutt for Vannforskning (NIVA), Norway
10. Great Waters Research Collaborative (GWRC) (formerly Northeast-Midwest Institute Great Ships Initiative)
11. PML Applications Ltd
12. Control Union Water B.V. (formerly Royal Netherlands Institute for Sea Research, NIOZ & GCDC, formerly GoConsult & DavidConsult)
13. SGS
14. Wageningen Marine Research



Figure 1: Map of member laboratories

2.1.2 Participation in Meetings and support for meetings/conferences

1. Global Industry Alliance (GIA) for Marine Biosafety launch (Organized by GloFouling) - 8 June 2020
2. 7th IMarEST Ballast Water Technology Conference 17-18th March 2021
3. GloFouling 1st Regional Task Force Meeting on Biofouling (PEMSEA) August 2021
4. MEPC 77 (online)
5. MEPC 78 (Online)
6. Support to World Ocean Council meeting (SOS) 2022
7. GloFouling 2nd R&D meeting (London) 2022
8. GloFouling 2nd Regional Task Force Meeting on Biofouling (PEMSEA) November 2022
9. Registered correspondence group (December 2022)

2.1.3 Technical Activities

1. *Vibrio Cholera* issues (January 2021)
2. Updates of the inter comparison chart from Global TestNet members (January 2021)
3. Acknowledging the need for Compliance position note (May 2021)
4. Submission of data to the WMU for EBP (summer 2021)
5. Information paper on Global TestNet activities to support the EPB of the IMO 2022 (MEPC 78 INF11)
6. Information paper on Port with Challenging Water Conditions 2022 (MEPC 79 INF6)

2.1.4 Social Media Activities #GlobalTestNet and promotion of Global TestNet

1. The Global TestNet activities may be shared in the LinkedIn page which has been created <https://www.linkedin.com/company/global-TestNet/>. (244 followers). Members and their staff are encouraged to add their activities as part of Global TestNet in their non-for-profit activities on their profiles.
2. For social media communications by members, **#GlobalTestNet** should be used.
3. The website is hosted and managed by PML
4. Ways to promote Global TestNet
 - One slide in presentations to conference that you attend... (to show you are a member of the Global TestNet)
 - Pin's promotional material (shared with members – some to be posted)
 - Banners and flyers.... (Produced and available to members upon request)
 - Add information in your email address. Example below:

Guillaume Drillet, PhD
Industries & Environment
Regional Manager for Asia & Oceania
Chair of Global TestNet
Marine Field Services & Monitoring

SGS Testing & Control Services Singapore Pte Ltd
30, Boon Lay Way, #03-01, Singapore 609957
Phone: (65) 63790106
Mobile: (65) 91262221
Fax: (65) 6778 4631
E-mail: Guillaume.Drillet@sas.com



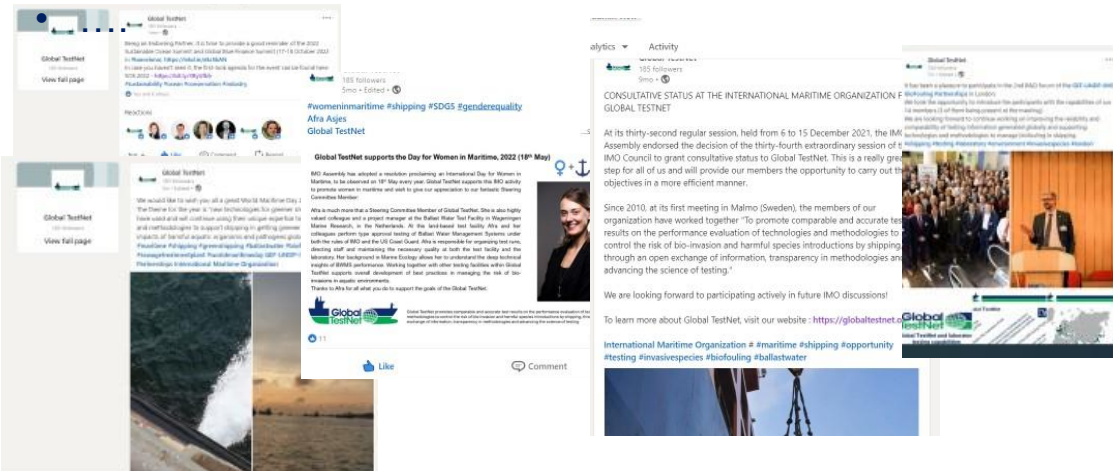
<https://www.globaltestnet.org/Home>

Global TestNet promotes comparable and accurate test results on the performance evaluation of technologies and methodologies to control the risk of bio-invasion and harmful species introductions by shipping, through an open exchange of information, transparency in methodologies and advancing the science of testing. Please join us.



Example of posts (to like and share)

- Day of women in maritime 2022 (support to IMO)
- World Maritime Day 2022 (Support to IMO)



www.globaltestnet.org

The Global Test Organizations Network

Figure 2: Example posts to share.

2.2 Directors' Report

- Incorporation of Global TestNet in the UK:



CERTIFICATE OF INCORPORATION
OF A
PRIVATE LIMITED COMPANY

Company Number 12548727

- Articles of incorporation are mandatory for Global TestNet Ltd. decision making (they revoke our old by-laws)
- 6th -15th December 2021 – IMO Council meeting: Consultative Status of Global TestNet at the IMO was granted.
- Updates of website to reflect the UK Company registration status (4 directors) – October 2021
 - Guillaume Drillet

- Tim Fileman
- Christopher Brown
- Stephen de Mora (Stepping down December 2022)
- Guidance for Participation in IMO meetings
- IMO web access
- Evaluation of needs for legal insurance for directorship
- Submission of tax statements
- First call for membership fees (fiscal year 2021-2022)
- Next call for membership fee - January 2023
- Expenditures
- Financial expert (Tax issues)
- Representation of Global TestNet in GLoFouling R&D Forum (partial support) and IMO meetings (MEPC).
- Promotional material (pins, flyers, banner...)

3 Technical Discussions

Each of the items were given as a presentation to the meeting. The presentations are attached in the annex of this report.

3.1 Ballast water

3.1.1 Updates from the Experience Building Phase (Theofanis Karayannis, IMO)

See attached slides

Discussions on Compliance Monitoring Devices almost finished (since PPR9) and report will be sent to PPR10 (April 2023).

Discussions from IACS and potential requirement for commissioning when big changes are done to an installed system will be discussed during MEPC79 (December 2022) – Similarly, there is paper on calibration submitted by IACS to MEPC79.

Port with Challenging Water Conditions : no consensus so far, this matter will be discussed during MEPC79 – Global TestNet has submitted an INF paper

Experience Building phase: data from the EBP were collated and submitted to MEPC78 and the Convention Review plan is being prepared through the correspondence group on ballast water – the plan will be submitted to MEPC80 (July 2023)

3.1.2 Views from Class on commissioning quality testing arrangements (Sahan Abeysekara - LR)

See attached slides

Commissioning based on Regulation E-1 (BWM2/Circ.70.rev1) and HSSC B1.1.1.3.20 (+EU countries). There are large differences between the requirement level between flags

Services provider approval for Commissioning testing have been becoming mandatory to all IACS members since early 2022 (previously was solely a requirement for ABS, DNV and LR). While some providers have been rejected on the basis of lack of expertise, there is a desire from Class to improve the robustness of the approval process.

As for now approval in LR is subject to 2 levels of verification

1/ QMP (records, training and knowledge, SOP, presence of subcontractors...)

2/ SOP, Assessment, understanding of BWMS functioning, analysis, evaluation of intake data)

LR has approved 28 providers, 17 of them work under 17025 accreditation – 2 providers have been rejected so far

Members of Global TestNet are requested for inputs in that effort (e.g. Chartering, Membership, detailed analysis, ISO 17025 and ISO 11711, ring tests...etc)

3.1.3 Impacts of mandatory requirements for commissioning testing on overall discharge compliance at installations (Guillaume Drillet, SGS)

Sampling and testing water from BWMS is performed for many reasons e.g., Type approval, Commissioning, Survey and Certification, Port State control. However, at this stage, a particular ship may only be tested for its capacity to meet the D-2 standard during commissioning taking a sample of 1m³ while the BWM Code suggest 3m³. Analyses are carried out according to BWM.2-CIRC.42-Rev.2 (ATP and detailed analysis in some of the 20 countries where SGS teams are approved under the Global Quality Management plan of SGS Marine Services). Waiting for

upcoming ISO11711 (for accreditation of facilities in ISO17025). BWM.2/Circ.70 BWMS Commissioning testing guidance required testing at inlet and discharge, and this has been carried out for hundreds of ships until BWM.2/Circ.70.rev1 was released. This allowed us to determine efficacy between inlet and discharge samples. Only a few cases had low ATP value (under D-2 limit) at inlet and therefore we conclude that in most cases there are enough organism to test. However, it is not uncommon to have concentrations of ATP higher at discharge than inlet. Overall, there has been great improvements in the discharge results since inception of testing, confirming that most yards and engineering companies involved have learned from the results of the biological testing. SGS has submitted a paper to a peer review journal on this topic (Drillet et al, submitted).

Observations from SGS testing

- ~1,000 tests since 2019 September
- % attendance of the BWMS manufacturer has increased (probably to support crew in operating the BWMS properly)
- Failure rates decreased from ~30% initially to less than 5% at this stage
- Non-compliances are found for the largest size fraction (>50 µm) in the vast majority of tests (99%)
- Failures on TRO discharge is about 8-10% but may be due to issues with installations (See presentations)
- Installation not made according to design approved by class (a few cases)
- Impossibility to verify G2 sampling point installation (already welded in discharge line) and in some cases not compatible with ISO11711-1 (isokinetics sampling). Installation limiting sampling (low pressure, air in the pipes, too small sampling probe).
- Discrepancies between Class HQ and Class surveyors' positions and understanding (very common) and large competition with testing organisation with no expertise and at costs rendering impossible to compete with quality testing.

Overall, it is observed that mandatory testing has supported better installations and provided evidence that BWMSs are capable of functioning properly but with quite a few observations that raise concerns about potential errors during installation (and lack of cleaning tanks – only clean one tank for commissioning and not the others).

3.1.4 What to learn from 16 years of shipboard testing data (Stephanie Delacroix, NIVA)

During the past 17 years, NIVA has conducted both land-based and shipboard type approval testing of many different types of BWMS according to IMO and/or USCG regulations.

Since the entry in force of the IMO regulations in June 2022 regarding commissioning testing, NIVA has conducted many shipboard BWMS commissioning tests, mostly in Norway but also in Europe. NIVA has observed a steep learning curve during this new testing process; with a lot of teaching of the shipping companies regarding the IMO commissioning testing requirements at first, and then learning by failing and then taking more seriously our recommendations for proper cleaning of the tanks prior to tests. We are still struggling sometimes with non-compliant sampling

tube configuration, but we observed almost no unsuccessful tests any more. NIVA presented a comparison of IMO testing requirements between commissioning test guideline and Port State Control guidance, but also with USEPA's Vessel General Permit.

3.1.5 Updates from GESAMP BWWG (Jan Linders, Chair)

See attached slides

Clarification on when a BWMS should be testing again in case of changes affecting the final approval from GESAMP.

Need further verification for comparison between amperometric vs DPD methods for Cl₂ measurements. When a BWMS is using an amperometric system, the test facility operating during the type approval should co-monitor the results using DPD methods (e.g. every ~4min)

Discussions on distances and cleaning of pipes between TRO intake point and TRO meter (generating delays between measurements and PLC) – real life experience from Global TestNet members on this topic would be appreciated

3.1.6 Updates from VIDA (Stephen Loiacono, GBF)

The Vessel Incidental Discharge Act (VIDA) was signed into law in the United States in 2018. VIDA gave the Environmental Protection Agency (EPA) the authority to set discharge standards of 20 types of vessel discharges including ballast water and the United States Coast Guard (USCG) to enforce compliance. VIDA was passed to replace Vessel General Permit (VGP) which did not include ballast water sampling for organisms in the $\geq 10 - < 50 \mu\text{m}$ and $\geq 50 \mu\text{m}$ size class. Two years have now passed and the EPA has still not released its discharge standards for unknown reasons. Environmental groups and lawmakers are pressuring the EPA to do so, but there is no clear timeline on when that will happen.

3.2 Biofouling & AFS

3.2.1 Updates from PML activities regarding AFS and Biofouling (Thomas Vance, PML Applications Ltd.)

- There has never been a better time to introduce standards and consistency into the world of biofouling control.
- Some of these standards would be challenging and resource intensive to introduce so I suggest we focus on some relatively easy wins
- Maybe good place to start is right at the beginning and try to introduce some standardised terminology so we at least all know what we are all talking about!
- MGPs performance is varied and I believe there is an opportunity to introduce a standard efficacy demonstration procedure to allow end-users and technology developers to benchmark performance
- Antifouling coating performance varies considerably too, and I believe there is a requirement for a sector specific coating efficacy standard relating purely to biological growth control to allow marine end-users beyond the commercial shipping to select coatings based on data-based performance.

- While the IWHC area needs attention, I believe it will consume lots of resource to provide a meaningful contribution, and this field is already crowded. Perhaps an easier win for GTN would be to consider AFC compatibility with IWHC systems. This element is critical, but to my knowledge, unresolved.

3.2.2 AFS convention and the Biofouling Guidelines: regulatory update (Theofanis Karayannis, IMO)

See attached slides

Correspondance group on revision of Biofouling Guidelines ongoing (almost done) and submission to be completed by next PPR meeting (April 2023). Still some discussions ongoing. Discussions on the revision of the biofouling guidelines for recreational boats may come at a later stage

3.2.3 GloFouling Project Update (IMO) 20 min (John Alonso, GloFouling)

See attached slides

GloFouling would be happy with inputs on niche areas and may need support to peer review some of the reports developed. There are unknowns about biofouling wastes and therefore a study may be launched by the Global Industry Alliance (GIA – TEST).

3.2.4 Overview of Biofouling Activities at KIOST (Dr Kang, KIOST)

See attached slides

3.2.5 Updates from Biofouling activities at Biofouling Solutions and comments on MERC recently published Guidelines (Ashley Coutts, BFS)

See attached slides

3.2.6 Introduction to Biofouling monitoring AI systems (Alexandre Arnaud, Nautilo Plus)

Notilo Plus gives clarity on the state of the hulls to help shipowners make the right maintenance decision on the short term (should I clean?) and on the long term (what Antifouling system is adapted for my use?). To do so we developed and provide a suite of technology composed by our Seam ROV and Notilo Cloud software that enable to:

- create zone by zone detailed biofouling assessments
- digitalize hull reports and keep track of change over time through our Notilo Cloud software)
- analyze the impact of fouling, coating decisions
- securely share data with the relevant stakeholders.

As we are independent from coating and cleaning companies, we help assess and monitor hull performance decisions at the fleet scale. We help shipping companies to have CII-ready, biosecurity-ready, climate-ready reports and KPIs. We are actively working with leading tankers (Euronav) and Cruise Lines (Carnival Corporation) companies.

3.2.7 Introduction to Endures 'activities (Alessio di Fino, Endures)

Endures is an independent research laboratory involved in the field of corrosion, electrochemistry, material failure, MIC and biofouling. The latter is nowadays strongly bonded with more suitable hull maintenance. Although underwater hull cleaning operations are performed routinely, fouling control coatings available in the market are not designed to undergo a cleaning process. Strong cleaning operation (reactive) can cause damages to the coatings and increase the risk of spreading of non-indigenous organisms. Some recent studies have proved that gentle cleaning (proactive cleaning) on newly developed thin biofouling is beneficial. In order to evaluate the fouling control coating resistance to mechanical stress, tests that simulate in-water cleaning operations and subsequent surface characterization are required. In this regard Endures is focusing the research on finding the best approach for in-water hull cleaning methodologies and the response of the fouling control coating. This study aims to investigate the effect of repetitive cleaning operations on biofouling accumulation, on two different thin fouling release coatings, immersed in the sea under static conditions, during the summer season in the North Sea. The two coatings responded differently to the cleaning process, one was biofouling free after cleaning, while the second paint was showing less effective biofouling removal. Importantly, surface roughness was not significantly impacted when before and after cleaning conditions were assessed. The outcomes suggest that it is possible to match the appropriate cleaning setup to the type of fouling pressure and fouling control coating for the most suitable hull maintenance practice.

4 Conclusions from Discussions and To do List (2023)

4.1 Administrative matters

4.1.1 Directorship

Prof Stephen de Mora has submitted his resignation letter to the board of director. This will take effect on 31st of December 2022.

Three directors are continuing their activities for the Global TestNet company.

- Guillaume Drillet
- Tim Fileman
- Cristopher Brown

4.1.2 Elections

The elections were carried out with a Quorum (Marine Biological Research Institute of Japan, Co., Ltd giving it proxy to PML Applications). The new steering committee has been elected without a secretariat at this stage but later confirmed as below.

Chair: Guillaume Drillet (SGS)

SC member 1: Ashley Coutts (BFS)

SC member 2: Remi Maguet (DHI)

Secretariat : Stephen Locaino (GBF)

4.1.3 Fees

Discussions on alignment of tax declaration and annual fee requests concluded that the annual fee should be requested early in the year. The annual fee 2023 will be submitted to members early in the year. There will be no increase of annual fee in 2023, the fee will be 1,000GBP.

4.1.4 Membership

- There have been a few requests from new companies to join the Global TestNet membership. This will be a task to the new steering committee to work on this request and submit to directorship.
- The membership should have the right to attend the IMO meeting under the umbrella of the Global TestNet, the Directorship has prepared a Code of Conduct for such attendance. Request to the Chair should be submitted and approved by Board of Director.
- The members are requested to review their primary and secondary points of contact and send this refreshed information to the Steering Committee.
- Members who have not submitted their QMP and conflict of interest policy, list of SOPs, should send these documents to the Steering Committee.

4.1.5 Next meeting

The members are requested to share information about potential future conferences with the aim of organising the next annual meeting together with an event.

4.1.6 Admin Tasks for 2023

Please find below a message addressed to all IMO Member States, IGOs and NGOs in consultative status with IMO:

On behalf of the Secretary-General, the External Relations Office is pleased to provide advance notice of the 2023 World Maritime Day celebration, which will take place at IMO Headquarters on Thursday, 28 September 2023.

As this annual event represents one of the most prestigious occasions for IMO and the maritime community, we would kindly request that you take note of the above date when preparing your calendar of events in order to avoid any potential clashes. Further information on the event celebration will be provided in due course.

4.2 Technical matters

4.2.1 Class

The members agree to initiate a discussion group to evaluate how to best support classification societies (IACS) in improving requirements for service supplier approval. While Classification have approved many providers there is a clear view that many suppliers need to improve their knowledge and practices. The members note however that the approval of sub-quality provider has disturbed the market and Global TestNet members cannot compete because of quality requirements (some members decreasing presence in some countries).

Discussions from the Global TestNet could include (but not limited to)

- Requirements for proficiency tests
- Cross-laboratory comparisons
- Requirements for ISO 17025 (also beneficial in view of ISO 11711 developments)
- Ring tests
- Development of training material
- Development of Best practices...

4.2.2 GESAMP

GESAMP has requested that we share our experiences from testing organisations and impacts of installations on discharge of chemicals into the environment (and potential safety issues for crew)

- Guillaume to share this information to GESAMP

4.2.3 Technical Agenda for 2023

4.2.3.1 Ballast water

- The group agreed to continue and intensify the sharing of information on commissioning testing (installation, operations, compliance, including that of TRO discharges) and compare to that experience from land-based facilities during type approval testing. This target for this discussion should be a submission of an INF paper to IMO for a future MEPC or PPR

meeting.

- The group agreed to initiate a discussion on calibration once information is gathered from IMO regulations, BEMA position...etc (Guillaume to gather information on that matter prior to launching the discussion)
- The group did not discuss the developments on compliance and monitoring devices (CMDs). (Guillaume to ask update from Chair of ISO group).
- The group agreed to develop discussion on sampling points and sizing, positioning issues taking into account requirements for sampling appropriate volumes for D-2 discharge analysis. Taking into account (IACS recommendations [if any]; ISO 11711...etc)

4.2.3.2 Biofouling and AFS

- The group agreed to evaluate existing in water cleaning (IWC) evaluation guidance globally and position itself vis-à-vis these. The terms of reference for this discussion are yet to be developed but should include a stepped approach with a proposed position on land-based testing prior to testing in real life conditions on ships at sea.
- The group agreed to evaluate the principles by which marine growth prevention systems (MGPS) should be evaluated.
- The group agreed to initiate discussion to put together the principles by which Antifouling Systems (AFS) should be evaluated for their performance (static vs dynamic...etc), in view of setting the basis for a potential future guidance document.
- The group agreed to initiate discussions on the impact of IWC on AFS (different IWC approaches impact different AFS in various ways).

5 Annex – Presentations:

Sent separately